BIOSTATISTICS, MSPH

The MSPH program in Biostatistics emphasizes applied data analysis in the areas of public health and medicine, by preparing students to analyze data in a wide range of settings, including public health surveillance and research programs; local, state, and federal government agencies; pharmaceutical research divisions; university research programs; and consulting firms. Students learn to assist in selecting research design appropriate for the goals of the research, estimate sample size requirements, establish and maintain databases, select and conduct the appropriate statistical analysis, and communicate the results of the analysis orally and in writing fields of public health. Coursework concentrates on developing these statistical skills through the use of actual data sets and computerized statistical software packages.

Program Competencies

• Incorporate knowledge of the core areas of biostatistics, epidemiology, environmental health, health systems management, and the behavioral, social, and cultural aspects of health in addressing and solving problems.
• Select and conduct appropriate statistical procedures for evaluation of public health intervention and surveillance programs.
• Contribute to the design of public health programs by estimating the required sample size and power for program monitoring.
• Incorporate knowledge of databases and information systems in data collection and study management of public health intervention and surveillance programs.
• Interpret and effectively communicate statistical analysis results orally and in writing to public health investigators, collaborators, and members of general community.

Requirements

The MSPH Degree in Biostatistics requires a total of 42 credits that includes:

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1 Selected from courses offered within the department, school, or university in consultation with an academic advisor.
2 The Applied Practice Experience (APE) (formerly practicum) is a supervised practice experience conducted in an agency or organization external to the university to gain practical experience. The APE allows students to demonstrate attainment of at least five competencies, including at least 3 from the foundational competencies (CEPH Criterion D2). The APE is conducted after completion of the foundational courses. After identifying the APE setting and defining the competencies, students enter the information into Terra Dotta. An APE report is required that summarizes the field experiences.
3 All students must complete an Integrated Learning Experience (ILE) (formerly culminating experience) that demonstrates the synthesis of foundational and concentration competencies. Students in the MSPH in Biostatistics conduct a public health analysis.

MSPH in Biostatistics Model Course Schedule

*For Fall or Spring entrance
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